

# Work Order ID 52902

October 19, 2009 12:35:12 PM



Page 1

Item ID: D3407-1

Accept



Setup Start



Revision ID: E

Stop



Item Name: Stem

Start Date: 10/19/09 Start Qty: 20.00



Cust Item ID:

Required Date: 11/02/09 Req'd Qty: 20.00



Customer:

Reference:

Approvals: Process Plan: *PL*

Date: *09-10-19*

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3407

Rev E

100

0.00



DOOSAN LATHE

Doosan

Memo

0.00

Doosan Lathe

1-Turn as per Folio FA596 Rev: *AA* & Dwg D3407 Rev: *E* U2-Deburr

*09.11.04*

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

*09.11.04* (22)

120

0.00



QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

*SA 09/11/04* 22 *0*

# Work Order ID 52902

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Page 2

Item ID: D3407-1

Accept

Revision ID: E

Item Name: Stem

Start Date: 10/19/09 Start Qty: 20.00

Required Date: 11/02/09 Req'd Qty: 20.00

Reference:

Approvals: Process Plan: Date: Tooling: Date:

QC: Date: SPC (Y/N): Date:

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130 Identify as per dwg & Stock Location: CALC

0.00



Packaging

Memo

0.00

Packaging

140 QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

PC 9/11/05 (22)

09/11/06 AF

MF  
09-11-05

# Picklist Print

October 19, 2009 12:35:16 PM

Page 1

Work Order ID: 52902

Parent Item: D3407-1RevE

Parent Item Name: Stem



Comments:

Start Date: 10/19/09

Required Date: 11/02/09

Start Qty: 20.00

Required Qty: 20.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
M174R0.750 		Purchased	No			100	f	12.2500	7.7053			
17-4 round bar .750												

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

MAT

12.25

110777

12.25

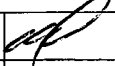
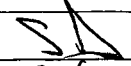
*Handwritten:* 11.11.04 1112998 9.95'



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	52902
<b>Description:</b> Tow Ring		<b>Part Number:</b>	D3407-1
<b>Inspection Dwg:</b> D3407 <b>Rev:</b> E		<b>Page 1 of 1</b>	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article      ☐ Prototype

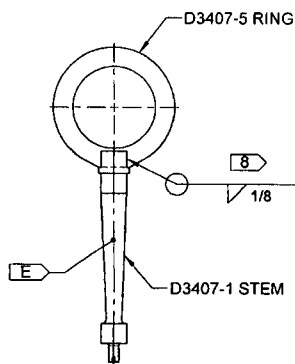
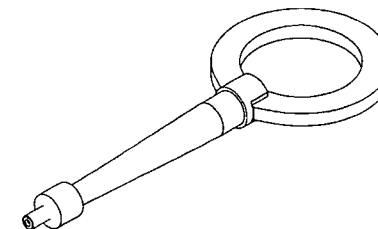
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.063	+/-0.010	.063	/			
1/4-28 UNF	Max: 0.2668 Min: 0.2635	.265	/			
Major Ø	Max: 0.249 Min: 0.2425	.244	/			
Ø0.625	+/-0.010	.625	/			
Ø0.363	+/-0.010	.363	/			
Ø0.750	+/-0.010	.750	/			
R0.100	+/-0.010	R.100	/			
0.470	+/-0.010	.470	/			
0.500	+/-0.010	.500	/			
3.250	+/-0.010	3.250	/			
4.250	+0.000/-0.010	4.245	/			
5.270	+/-0.010	5.265	/			
0.150	+/-0.010	.150	/			
0.550	+/-0.010	.551	/			
0.625	+/-0.010	.625	/			
0.250	+0.010/-0.000	.258	/			

<b>Measured by:</b> 	<b>Audited by:</b> 	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 08.11.04	<b>Date:</b> 09/11/04	<b>Date:</b>	N/A

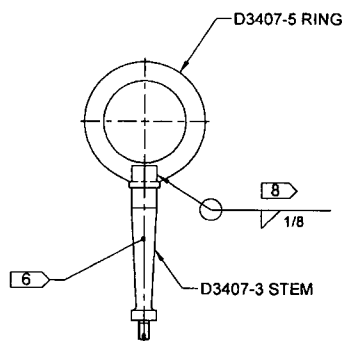
Rev	Date	Change	Revised by	Approved
A	06.09.19	New Issue	KJ/JLM	
B	07.07.18	Tolerances for diameters updated per Machinists	KJ/JLM	
C	08.05.14	Dimensions updated per Dwg Rev D	KJ/JLM	
D	08.10.07	Dimensions updated per Dwg Rev E	KJ/DD 	

QTY -041	QTY -043	QTY -045	PART NUMBER	DESCRIPTION
X			D3407-041	TOW RING
	X		D3407-043	TOW RING
		X	D3407-045	TOW RING
1			D3407-1	STEM
	1		D3407-3	STEM
1	1	1	D3407-5	RING
		1	D3407-7	STEM

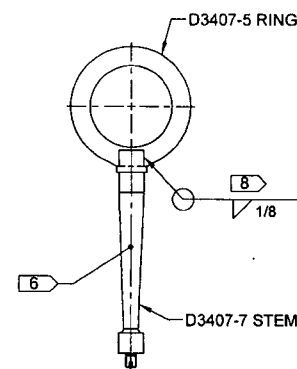
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PL 09-10-16



**D3407-041 TOW RING**



**D3407-043 TOW RING**



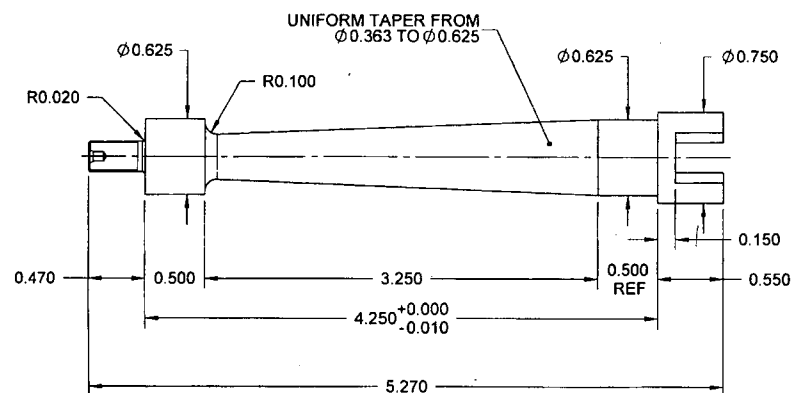
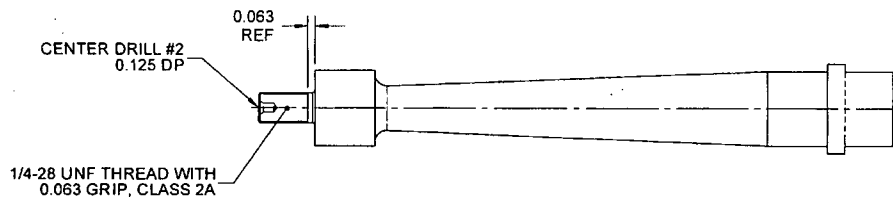
**D3407-045 TOW RING**

**RELEASED**

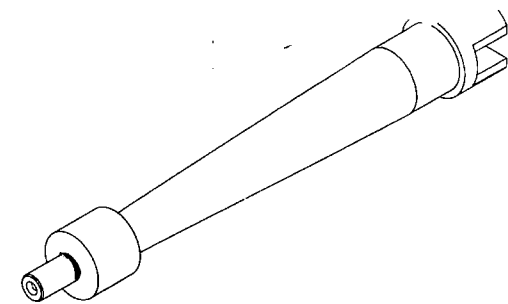
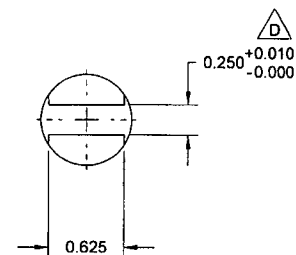
**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3 (EXCEPT THREADS)
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3407-XXX" USING BLACK FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: D3407-041 - 0.60 lbs, D3407-043 - 0.53 lbs, D3407-045 - 0.61 lbs
- 8) WELD PER DART QSI 004 ON ALL EDGES BETWEEN STEM AND RING

E	ADD D3407-045 (ZN B2-1, D8-1); ADD D3407-7 (ZN B6-5); REVISED NOTE 6 TO ADD IDENTIFICATION (ZN A5-1); REASON: PRODUCTION FACILITY	PH	08.07.23
D	D3407-1/-3 SLOT WAS ROUND NOW FLAT FOR ASSEMBLY WITH D3407-5 (ZN C2-2, C2-3); D3407-5 WAS ROUND NOW FLAT ON ONE END FOR ASSEMBLY WITH D3407-1/-3 (ZN B6-4); REASON: PRODUCTION FACILITY	PH	08.04.07
C	-1/-3 LONGER FOR FIT W/WASHER	CP	05.09.09
B	UPDATE DIAMETER, THREAD CLASS ADDED	CP	05.06.17
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	08.07.23		
<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA DRAWING NO. <b>D3407</b> TITLE <b>TOW RING</b> REV. E SHEET 1 OF 5 SCALE NTS <small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>			



D3407-1 STEM

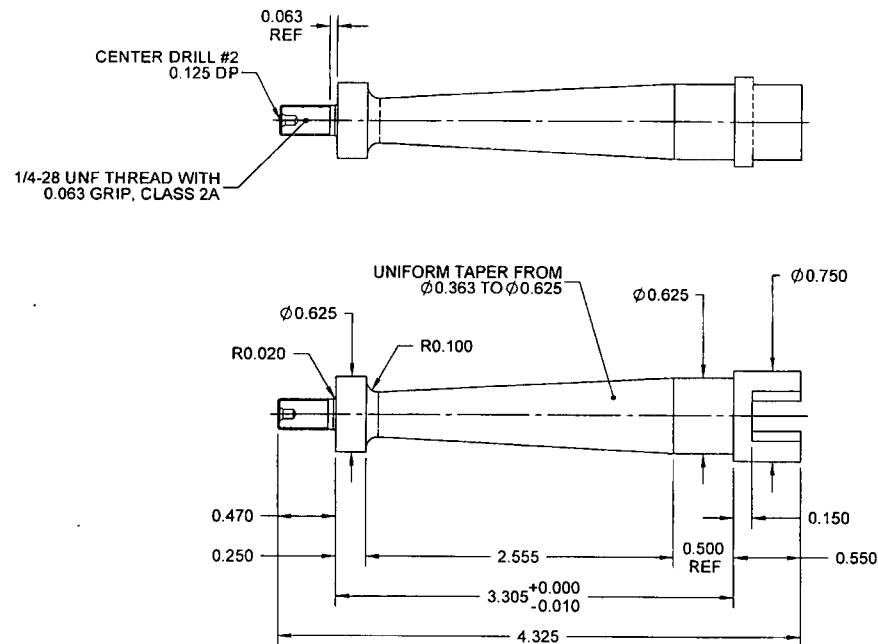


SHIP NAME  
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WD  
NO. 52902

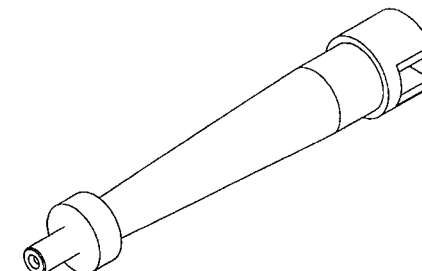
RELEASED  
08-07-23

- NOTES:
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.33 lbs

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MFG. APPR.		D3407	SHEET 2 OF 5
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**D3407-3 STEM**



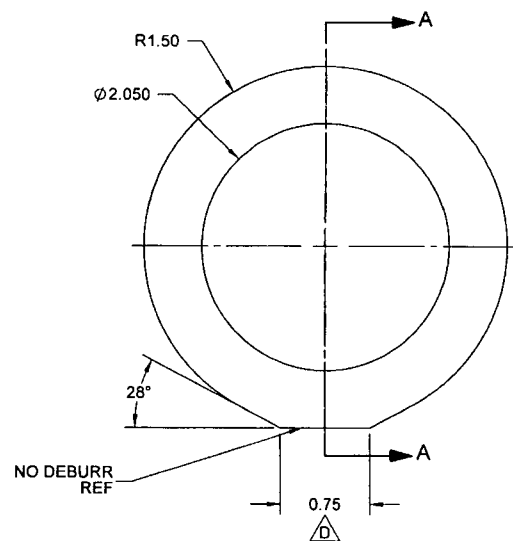
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*08-08-01 RPA*

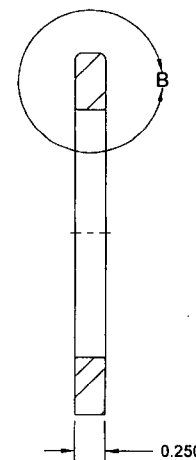
**NOTES:**

- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.27 lbs

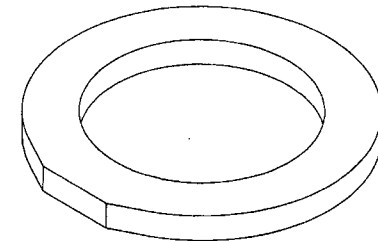
DESIGN	<i>JP</i>	<b>DART AEROSPACE USA, INC.</b>	
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CHECKED	<i>JP</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>JP</i>	<b>D3407</b>	SHEET 3 OF 5
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DE APPR.	<i>JP</i>	<b>TOW RING</b>	NTS
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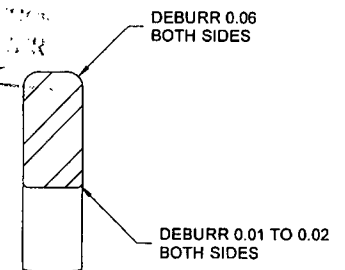
**D3407-5 RING**



**SECTION A-A**



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WITH ALL  
WORK  
NO 50902



**DETAIL B  
SCALE 2X**

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06-06-01/14

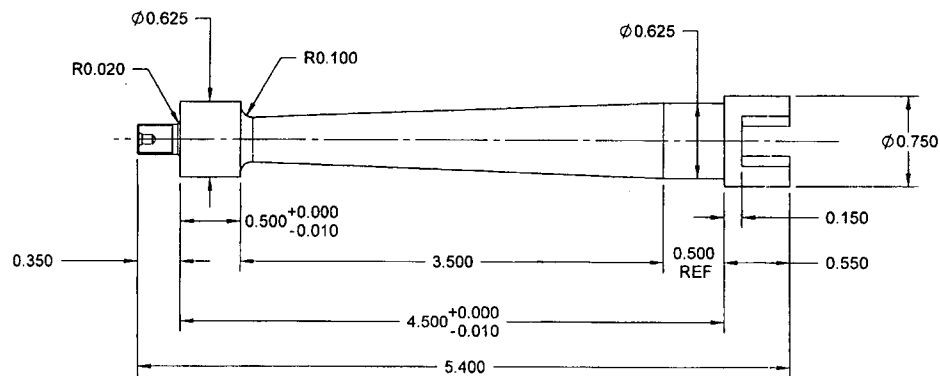
- NOTES:**
- 1) MATERIAL: 17-4 PH SS BAR PER AMS 5604/5643 (REF. DART SPEC M17-4-B)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: N/A
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.27 lbs

DESIGN	92	<b>DART AEROSPACE USA, INC.</b>	
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MFG. APPR.		D3407	SHEET 4 OF 5
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DE APPR.		TOW RING	NTS
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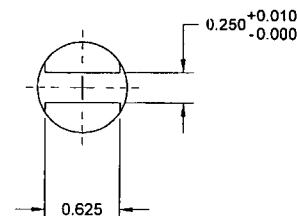
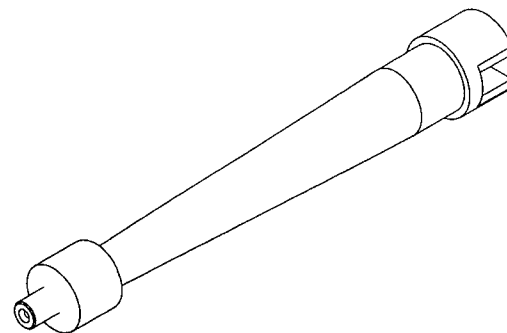


0.063  
REF  
CENTER DRILL #2  
0.125 DP

1/4-28 UNF THREAD WITH  
0.063 GRIP, CLASS 2A





**D3407-7 STEM**



SHR  
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SUBJECT TO  
WITH  
WORK  
NO. 58902

**RELEASED**

- NOTES:
- 1) MATERIAL: 17-4 PH SS ROUND BAR PER AMS 5643 (REF. DART SPEC M17-4-R)
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 0.34 lbs

DESIGN	AJS	<b>DART AEROSPACE USA, INC.</b>	
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CHECKED		DRAWING NO.	REV. E
MFG. APPR.		D3407	SHEET 5 OF 5
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